

5 **Claims:**

1. A method for the qualitative and quantitative
determination of the multimers of multimer-forming
10 therapeutic proteins by gel electrophoresis,
wherein a sample containing von Willebrand factor
(vWF) or fibrinogen is fractionated by submarine
electrophoresis using a continuous, homogeneous
agarose gel free of lumps, and the multimer bands
15 are visualized immunochemically after a Western
blot analysis by a specific antibody-enzyme
conjugate on the blotting membrane or by a
suitable dye, preferably with a blue stain, in the
gel.
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2. The method as claimed in claim 1, wherein the
multimer-forming therapeutic protein is
fibrinogen.
- 25 3. The method as claimed in claim 1, wherein the
multimer-forming therapeutic protein is von
Willebrand factor (vWF).
4. The method as claimed in claim 2, wherein an
30 agarose gel with an agarose concentration of 1.6 -
3% by weight, preferably of 1.8 - 2.4% by weight,
is employed for separating the fibrinogen
multimer.
- 35 5. The method as claimed in claim 3, wherein an
agarose gel with an agarose concentration of 0.7 -
1.8% by weight, preferably of 0.8 - 1.2% by weight
is employed for separating the vWF multimers.

6. The method as claimed in claims 1 to 5, wherein the gel electrophoresis is carried out at temperatures between 6°C and 14°C, preferably between 8°C and 12°C.
- 5 7. The method as claimed in claims 1 to 6, wherein an immunostaining is employed for staining the multimer bands on the blotting membrane.
- 10 8. The method as claimed in claims 1 to 6, wherein the dye Coomassie blue is employed for blue staining of the multimer bands in the gel.
- 15 9. The method as claimed in claims 1 to 8, wherein an agarose gel on a backing sheet is employed for the blue staining in the gel.
- 20 10. The method as claimed in claims 1 to 8, wherein an agarose gel without backing sheet is employed for the immunostaining on the blotting membrane, or the backing sheet is removed from the gel before the blotting process.
- 25 11. The method as claimed in claims 1 to 10, wherein the bands are quantified by densitometry.
- 30 12. The method as claimed in claim 11, wherein the bands are quantified after blue staining of the gel.
- 35 13. The method as claimed in claim 11, wherein the bands are quantified after immunostaining of the blotting membrane.
14. The method as claimed in claim 9, wherein the gel is preserved by lamination after the staining.

15. The method as claimed in claim 10, wherein the blotting membrane is preserved by lamination after the immunostaining.